



# STIC EIC 2100 Search Request Form

174781

Today's Date: 4/19/2005

What date would you like to use to limit the search?

Priority Date: 4/9/1999

Other: \_\_\_\_\_

Name Nadia Khoshnoodi

AU 2133 Examiner # 80432

Room # 2B65 Phone 2-3825

Serial # 09/719,193

Format for Search Results (Circle One):

PAPER DISK EMAIL

Where have you searched so far?

USP DWPI EPO JPO ACM IBM TDB

IEEE INSPEC SPI Other \_\_\_\_\_

Is this a "Fast & Focused" Search Request? (Circle One) YES NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at <http://ptoweb/patents/stic/stic-tc2100.htm>.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

(Separate partition fragment)  $\Rightarrow$  breaking apart an  
near (cipher; algorithm)  $\Rightarrow$  algorithm based on the data  
(method; instruction; ~~algorithm~~)  
(assign attribute delegated)  $\Rightarrow$  assign a variable to  
near designate each part of the  
(variable value register load) algorithm  
"formal argument" function  
  
novelty:  
algorithm is calculated based on <sup>the</sup> data which  
makes it less vulnerable to "Differential Key Differential  
Power Analysis" (DKDPA)  
\*already found US Patent # 6,658,569 Double-Patenting Ref.

STIC Searcher \_\_\_\_\_ Phone \_\_\_\_\_

Date picked up \_\_\_\_\_ Date Completed \_\_\_\_\_



Patent  
FT

Set	Items	Description
S1	113273	ALGORITHM OR CIPHER? OR CYPHER?
S2	676886	DATA
S3	133366	(BASED() ON OR ACCORDING? OR CONTINGENT? OR EPENDING) (3N) S2
S4	1533	S1 (5N) S3
S5	347	S4 AND IC=H04L
S6	172	S5 AND AY=1978:1999
S7	77998	(BASED() ON OR ACCORDING? OR CONTINGENT? OR DEPENDENT? OR D- EPENDING) (3W) S2
S8	478	S1 (5N) S7
S9	103	S8 AND IC=H04L
S10	52	S9 AND AY=1978:1999
S11	52	IDPAT (sorted in duplicate/non-duplicate order)
S12	52	IDPAT (primary/non-duplicate records only)
S13	357	S1 (3N) S7
S14	83	S13 AND IC=H04L
S15	44	S14 AND AY=1978:1999
S16	44	IDPAT (sorted in duplicate/non-duplicate order)
S17	44	IDPAT (primary/non-duplicate records only)

File 348: EUROPEAN PATENTS 1978-2005/Dec W02  
(c) 2005 European Patent Office

File 349: PCT FULLTEXT 1979-2005/UB=20051215, UT=20051208  
(c) 2005 WIPO/Univentio

6/5,K/7 (Item 7 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2005 European Patent Office. All rts. reserv.

01262474

**Data-aided and phase-independent adaptive equalization for data transmission systems**

**Datenunterstützte und phasenunabhängige adaptive Entzerrung für Daten-Übertragungssysteme**

**Egalisation adaptative assistee par des donnees et independante de la phase pour des systemes de transmission de donnees**

PATENT ASSIGNEE:

ALCATEL, (201871), 54, rue la Boetie, 75008 Paris, (FR), (Applicant designated States: all)

INVENTOR:

Frigerio, Marco, Via Don Sturzo, 12, 20059 Vimercate (Milano), (IT)  
Spalvieri, Arnaldo, Via Ozieri, 4, 20100 Milano, (IT)  
Valtolina, Roberto, Via Fratelli Bandiera, 6/A, 20056 Trezzo sull'Adda, (IT)

LEGAL REPRESENTATIVE:

Lamoureux, Bernard et al (83293), Compagnie Financiere Alcatel  
Departement de Propriete Industrielle, 5, rue Noel Pons, 92734 Nanterre Cedex, (FR)

PATENT (CC, No, Kind, Date): EP 1089457 A2 010404 (Basic)  
EP 1089457 A3 040107

APPLICATION (CC, No, Date): EP 2000402588 000919;

PRIORITY (CC, No, Date): IT 99MI2009 990928

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04B-007/005; H04L-025/03

ABSTRACT EP 1089457 A2

A method and an equalizer is described for the adaptive equalization in a real- or complex- data transmission system, characterized by operating independently of the phase of the signal at the input of the equalizer but dependently of decided data. The equalizer comprises a FIR filter whose coefficients vary with time according to a determined cost function (J) given by where  $E((center \cdot dot))$  indicates the averaging operation in relation to the symbols. In the event of combination of two or more signals in space diversity, the method allows for the coherent demodulation downstream of the equalizers.

ABSTRACT WORD COUNT: 97

NOTE:

Figure number on first page: 2

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010404 A2 Published application without search report  
Change: 030319 A2 Legal representative(s) changed 20030130  
Change: 030402 A2 Legal representative(s) changed 20030210  
Change: 040102 A2 International Patent Classification changed: 20031111

Search Report: 040107 A3 Separate publication of the search report

Withdrawal: 050420 A2 Date application deemed withdrawn: 20040708

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200114	679
SPEC A	(English)	200114	2502
Total word count - document A			3181
Total word count - document B			0
Total word count - documents A + B			3181

...INTERNATIONAL PATENT CLASS: H04L-025/03

...SPECIFICATION the CMA algorithms: thus, an algorithm has achieved which is a phase independent decision directed **algorithm** (PIDDA) **based on data** but independent of the phase, having the following cost function: where  $E((\text{center dot}))$  denotes...

12/5,K/6 (Item 6 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2005 European Patent Office. All rts. reserv.

01206035

**System and method for network monitoring**  
**Verfahren und Vorrichtung zur Netzwerküberwachung**  
**Methode et appareil pour la monitorisation de reseaux**

PATENT ASSIGNEE:

Hewlett-Packard Company, A Delaware Corporation, (3016020), 3000 Hanover  
Street, Palo Alto, CA 94304, (US), (Applicant designated States: all)

INVENTOR:

Dowling, Brian M., 2440 Loch Way, El Eldorado Hills, California 95762,  
(US)

L'Ecuyer, Brian P., 9020 Poplar Hollow Lane, Elk Grove, California 95624,  
(US)

LEGAL REPRESENTATIVE:

Powell, Stephen David et al (52311), WILLIAMS, POWELL & ASSOCIATES 4 St  
Paul's Churchyard, London EC4M 8AY, (GB)

PATENT (CC, No, Kind, Date): EP 1049292 A2 001102 (Basic)  
EP 1049292 A3 020605

APPLICATION (CC, No, Date): EP 2000303441 000425;

PRIORITY (CC, No, Date): US 303724 990430

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04L-012/26 ; H04L-029/06

ABSTRACT EP 1049292 A2

An algorithmic snoop unit (28) snoops interleaved transactions over a shared bus (42) as data is transmitted via transactions between clients (34, 36, 38) coupled to the shared bus, and executes various algorithms upon data snooped from the transactions. The unit includes one or more algorithmic entries (46, 48, 50) along with an algorithmic engine (44). Each algorithmic entry includes a client ID register that identifies the client associated with a transaction, a starting address register and an ending address that define the address range upon which an algorithm will be executed, a read or write flag that identifies whether the transactions is a read or write operation, an encryption key register for holding an encryption key, a decryption key register for holding a decryption key, an algorithm ID register for identifying an algorithm to be executed, a status/control register which holds various status and control, an accumulator for accumulating results from the execution of the algorithm, a temporary storage area, and one or more memory pointers that index a location in memory for results comprising a large amount of data. If a match is found, the algorithm identified by the algorithm ID register is executed upon the data carried by the transaction.

ABSTRACT WORD COUNT: 204

NOTE:

Figure number on first page: 2

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 001102 A2 Published application without search report

Assignee: 010502 A2 Transfer of rights to new applicant:  
Hewlett-Packard Company, A Delaware Corporation  
(3016020) 3000 Hanover Street Palo Alto, CA  
94304 US

Search Report: 020605 A3 Separate publication of the search report

Examination: 021120 A2 Date of request for examination: 20020923

Withdrawal: 030514 A2 Date of withdrawal of application: 20030319

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200044	482
SPEC A	(English)	200044	8283
Total word count - document A			8765

Total word count - document B 0  
Total word count - documents A + B 8765

INTERNATIONAL PATENT CLASS: H04L-012/26 ...  
... H04L-029/06

...SPECIFICATION algorithmic entry specified by active algorithmic entries  
bus 94, algorithmic calculation unit 84 executes the **algorithm based**  
**on** the transaction **data** carried by data bus 98 and the operands stored  
in algorithmic entry control information registers...

...CLAIMS to determine if the algorithmic entry should be active for that  
transaction, and executes an **algorithm based on data** carried  
by the bus transaction for each active algorithmic entry.  
2. The algorithmic snoop unit...

12/5,K/7 (Item 7 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01156735

**SEMI-RELIABLE DATA TRANSPORT**  
**HALB-ZUVERLASSIGER DATENTRANSPORT**  
**TRANSPORT DE DONNEES SEMI-FIABLE**

**PATENT ASSIGNEE:**

Enterasys Networks, Inc., (3943254), 50 Minuteman Road, Andover, MA 01810  
, (US), (Proprietor designated states: all)

**INVENTOR:**

KEMP, Bradford, H., 6 Lancelot Court 21, Salem, NH 03079, (US)  
MCCANN, Benjamin, E., 16 Wilson Lane, Acton, MA 01720, (US)

**LEGAL REPRESENTATIVE:**

Power, Philippa Louise et al (95391), Frank B. Dehn & Co., 179 Queen  
Victoria Street, London EC4V 4EL, (GB)

PATENT (CC, No, Kind, Date): EP 1119955 A1 010801 (Basic)  
EP 1119955 B1 040728  
EP 1119955 B1 040728  
WO 2000021262 000413

APPLICATION (CC, No, Date): EP 99951717 991001; WO 99US22919 991001

PRIORITY (CC, No, Date): US 167097 981005

DESIGNATED STATES (Pub A): AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE;  
IT; LI; LU; MC; NL; PT; SE; (Pub B): DE; FR; GB

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04L-029/06 ; H04L-001/18

CITED PATENTS (EP B): US 5553083 A

CITED PATENTS (WO A): XP 2131820 ; XP 621327

**CITED REFERENCES (EP B):**

MARASLI R ET AL: "Partially reliable transport service" PROCEEDINGS.  
SECOND IEEE SYMPOSIUM ON COMPUTERS AND COMMUNICATIONS (CAT.  
NO.97TB100137), PROCEEDINGS SECOND IEEE SYMPOSIUM ON COMPUTER AND  
COMMUNICATIONS, ALEXANDRIA, EGYPT, 1-3 JULY 1997, pages 648-656,  
XP002131820 1997, Los Alamitos, CA, USA, IEEE Comput. Soc, USA ISBN:  
0-8186-7852-6

MARASLI R ET AL: "RETRANSMISSION-BASED PARTIALLY RELIABLE TRANSPORT  
SERVICE: AN ANALYTIC MODEL" PROCEEDINGS OF INFOCOM,US,LOS ALAMITOS,  
IEEE COMP. SOC. PRESS, vol. CONF. 15, 1996, pages 621-629, XP000621327  
ISBN: 0-8186-7293-5;

**CITED REFERENCES (WO A):**

MARASLI R ET AL: "Partially reliable transport service" PROCEEDINGS.  
SECOND IEEE SYMPOSIUM ON COMPUTERS AND COMMUNICATIONS (CAT.  
NO.97TB100137), PROCEEDINGS SECOND IEEE SYMPOSIUM ON COMPUTER AND  
COMMUNICATIONS, ALEXANDRIA, EGYPT, 1-3 JULY 1997, pages 648-656,  
XP002131820 1997, Los Alamitos, CA, USA, IEEE Comput. Soc, USA ISBN:  
0-8186-7852-6

MARASLI R ET AL: "RETRANSMISSION-BASED PARTIALLY RELIABLE TRANSPORT  
SERVICE: AN ANALYTIC MODEL" PROCEEDINGS OF INFOCOM,US,LOS ALAMITOS,  
IEEE COMP. SOC. PRESS, vol. CONF. 15, 1996, pages 621-629, XP000621327  
ISBN: 0-8186-7293-5;

**NOTE:**

No A-document published by EPO

**LEGAL STATUS (Type, Pub Date, Kind, Text):**

Application: 000607 A1 International application. (Art. 158(1))  
Application: 000607 A1 International application entering European  
phase  
Application: 010801 A1 Published application with search report  
Examination: 010801 A1 Date of request for examination: 20010502  
Examination: 021211 A1 Date of dispatch of the first examination  
report: 20021025  
Assignee: 030618 A1 Transfer of rights to new applicant: Enterasys  
Networks, Inc. (3943254) 50 Minuteman Road  
Andover, MA 01810 US  
Change: 030618 A1 Legal representative(s) changed 20030429

Grant: 040728 B1 Granted patent  
Grant: 040728 B1 Granted patent  
Oppn None: 050720 B1 No opposition filed: 20050429  
LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200431	747
CLAIMS B	(German)	200431	805
CLAIMS B	(French)	200431	865
SPEC B	(English)	200431	7772
Total word count - document A			0
Total word count - document B			10189
Total word count - documents A + B			10189

INTERNATIONAL PATENT CLASS: H04L-029/06 ...

... H04L-001/18

...SPECIFICATION outbound data) prior to transmitting the third packet.  
The first software module implements a state- **dependent data**  
processing **algorithm** , such as a compression or an encryption algorithm,  
in which data processing of the outbound...

...CLAIMS processing raw outbound data for transmission from the source to  
the destination using a state- **dependent data** processing  
**algorithm** to produce outbound data wherein data processing of the  
raw outbound data depends on data...



12/5,K/8 (Item 8 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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01140512  
**SELF-CORRECTIVE RANDOMIZER-ENCRYPTOR SYSTEM AND METHOD**  
**SELBSTKORRIGIERENDES VERSCHLEIERUNGS-UND VERSCHLUSSELUNGSSYSTEM UND**  
**VERFAHREN**

**SYSTEME ET METHODE DE RANDOMISATION-CHIFFREMENT AUTOCORRECTEUR**

PATENT ASSIGNEE:

Ferre Herrero, Angel Jose, (2882890), Avenida Constitucio 3 bis, 3.,  
43540 Sant Carles de la Rapita, (ES), (Proprietor designated states:  
all)

INVENTOR:

Ferre Herrero, Angel Jose, Avenida Constitucio 3 bis-3., 43540 Sant  
Carles de la Rapita, (ES)

LEGAL REPRESENTATIVE:

Ponti Sales, Adelaida et al (54403), Consell de Cent, 322, 08007  
Barcelona, (ES)

PATENT (CC, No, Kind, Date): EP 1182777 A2 020227 (Basic)  
EP 1182777 B1 031001  
WO 2000008907 000224

APPLICATION (CC, No, Date): EP 99953987 991027; WO 99ES345 991027

PRIORITY (CC, No, Date): ES 991142 990518

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: H04L-009/00

CITED PATENTS (EP B): EP -0624013 A; EP -0676876 A; US 5220606 A; US  
5608800 A

ABSTRACT EP 1182777 A2

Self-corrector randomising-encrypting system and method such that being  
supplied input data sequence (X) and control block (K) always generates  
randomised-encrypted data sequence, which is an at random number  
sequence.

Signature generating-assembly device (601) with data sequence (X)  
generates signed plaintext sequence (XF) supplied to  
randomising-encrypting device (102), where it is grouped with candidate  
control block (KC), which is generated by candidate control block  
generator (801) with control block (K), and generate suggested  
randomised-encrypted text sequence (AP) supplied to randomness verifier  
(603), which validates sequence randomness. If suggested  
randomised-encrypted text sequence (AP) is at random, it is supplied as  
candidate control block generator (801) generates new candidate control  
block (KC) in order to randomise-encrypt the signed plaintext sequence  
(XF) again. The iteration is repeated until suggested  
randomised-encrypted text sequence (AP) is at random.

ABSTRACT WORD COUNT: 144

NOTE:

Figure number on first page: 8

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 020227 A2 Published application without search report  
Application: 20000419 A1 International application. (Art. 158(1))  
Lapse: 041006 B1 Date of lapse of European Patent in a

contracting state (Country, date): AT  
20031001, CY 20031027, DK 20040101, FI  
20031001, GR 20040101, NL 20031001, SE  
20040101,

Lapse: 040901 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20031001, CY 20031027, FI 20031001, GR  
20040101, NL 20031001, SE 20040101,

Lapse: 040728 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 20031001, FI 20031001, SE 20040101,

Lapse: 040609 B1 Date of lapse of European Patent in a contracting state (Country, date): SE 20040101,

Grant: 031001 B1 Granted patent

Examination: 020227 A2 Date of request for examination: 20011114

Change: 030402 A2 International Patent Classification changed: 20030212

Change: 030402 A2 Title of invention (German) changed: 20030212

Change: 030402 A2 Title of invention (English) changed: 20030212

Assignee: 031126 B1 Transfer of rights to new proprietor: Etechnaf, S.L. (4561260) C. Senieta no. 3, Esc. B 2o 1o 43540 Sant Carles de la Rapita (Barcelona) ES

Change: 031126 B1 Inventor information changed: 20031008

Lapse: 040623 B1 Date of lapse of European Patent in a contracting state (Country, date): FI 20031001, SE 20040101,

Lapse: 040811 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 20031001, FI 20031001, GR 20040101, NL 20031001, SE 20040101,

Oppn None: 040922 B1 No opposition filed: 20040702

Application: 20000419 A1 International application entering European phase

LANGUAGE (Publication,Procedural,Application): English; English; Spanish

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200209	13404
CLAIMS B	(English)	200340	4441
CLAIMS B	(German)	200340	4336
CLAIMS B	(French)	200340	5954
SPEC A	(English)	200209	25777
SPEC B	(English)	200340	25517
Total word count - document A			39188
Total word count - document B			40248
Total word count - documents A + B			79436

INTERNATIONAL PATENT CLASS: H04L-009/00

...SPECIFICATION you can have to repeat this process successively.

It is worth mentioning the existence of **ciphering** devices that operate **according** to the input **data** , which can be either the encryption key or the plaintext message data. Some examples of...

...SPECIFICATION you can have to repeat this process successively.

It is worth mentioning the existence of **ciphering** devices that operate **according** to the input **data** , which can be either the encryption key or the plaintext message data. Some examples of...

17/5,K/14 (Item 14 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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00661290

**Design and managing method for communication networks**  
**Entwurfs- und Verwaltungsverfahren für Kommunikationsnetze**  
**Procede de conception et de gestion pour reseau de communications**

PATENT ASSIGNEE:

FUJITSU LIMITED, (211460), 1015, Kamikodanaka, Nakahara-ku, Kawasaki-shi,  
Kanagawa 211, (JP), (Proprietor designated states: all)

INVENTOR:

Iwakawa, Akinori, c/o Fujitsu Limited, 1015, Kamikodanaka, Nakahara-ku,  
Kawasaki-shi, Kanagawa 211, (JP)  
Niu, Zhisheng, c/o Electronic Engineering Dept., Tsinghua University Qing  
Hua Yuan, Beijing, 100084, (CN)  
Abe, Shunji, c/o Fujitsu Limited, 1015, Kamikodanaka, Nakahara-ku,  
Kawasaki-shi, Kanagawa 211, (JP)

LEGAL REPRESENTATIVE:

Lehn, Werner, Dipl.-Ing. et al (7474), Hoffmann Eitle, Patent- und  
Rechtsanwalte, Arabellastrasse 4, 81925 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 635958 A2 950125 (Basic)  
EP 635958 A3 000112  
EP 635958 B1 050720

APPLICATION (CC, No, Date): EP 94111392 940721;

PRIORITY (CC, No, Date): JP 94165704 940719; JP 93180476 930721; JP  
93320316 931220

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: H04L-012/24 ; H04L-012/56 ; H04Q-003/00

CITED PATENTS (EP B): US 5119367 A; US 5153877 A

CITED REFERENCES (EP B):

HISAO UOSE ET AL: "DESIGN AND CONTROL ASPECTS OF ATM TRANSIT NETWORKS.  
-TOWARDS THE FLEXIBLE NETWORK-" PROCEEDINGS OF THE NETWORK OPERATIONS  
AND MANAGEMENT SYMPOSIUM (NOMS),US,NEW YORK, IEEE, vol. -, page 361-372  
XP000344708 ISBN: 0-7803-0588-4

GERSHT A ET AL: "REAL-TIME BANDWIDTH ALLOCATION AND PATH RESTORATIONS IN  
SONET-BASED SELF-HEALING MESH NETWORKS" PROCEEDINGS OF THE  
INTERNATIONAL CONFERENCE ON COMMUNICATIONS (ICC),US,NEW YORK, IEEE,  
vol. -, page 250-255 XP000371102 ISBN: 0-7803-0950-2

ANEROUSSIS N G ET AL: "A MULTIPROCESSOR ARCHITECTURE FOR REAL-TIME  
EMULATION OF MANAGEMENT AND CONTROL OF BROADBAND NETWORKS" PROCEEDINGS  
OF THE NETWORK OPERATIONS AND MANAGEMENT SYMPOSIUM (NOMS),US,NEW YORK,  
IEEE, vol. -, page 346-360 XP000344707 ISBN: 0-7803-0588-4;

ABSTRACT EP 635958 A2

A designing and managing system for a communications network comprising  
a physical network and a logical network provides a designing system for  
flexibly corresponding to a traffic fluctuation through a simple  
procedure, and a managing system for quickly selecting an applicable  
communications path in response to a path connection request and a path  
capacity change request. The designing system comprises units (1 and 2)  
for respectively determining the topologies of the physical network and  
the logical network independently of traffic conditions, units (3 and 4)  
for setting the path capacities of the physical network and the logical  
network respectively based upon a long-term traffic demand and an actual  
request. The managing system comprises a unit for registering the limited  
number of detour path candidates, a unit for determining the existence of  
a detour path in response to a virtual path connection request, and a  
unit, provided in a start point node of a communications path, for  
determining the acceptability of a change in the capacity of a path based  
on a value of a space size of each link forming part of the  
communications path. (see image in original document)

ABSTRACT WORD COUNT: 192

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

Examination: 010502 A2 Date of dispatch of the first examination  
report: 20010314  
Change: 20000112 A2 International Patent Classification changed:  
19991120  
Grant: 050720 B1 Granted patent  
Application: 950125 A2 Published application (A1with Search Report  
;A2without Search Report)  
Search Report: 20000112 A3 Separate publication of the search report  
Examination: 20000412 A2 Date of request for examination: 20000215  
Change: 950405 A2 Inventor (change)

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200529	3014
CLAIMS B	(German)	200529	2740
CLAIMS B	(French)	200529	3872
SPEC B	(English)	200529	17645
Total word count - document A			0
Total word count - document B			27271
Total word count - documents A + B			27271

INTERNATIONAL PATENT CLASS: **H04L-012/24** ...

... **H04L-012/56**

...SPECIFICATION the logical network independently of the traffic condition  
by executing a logical network topology design **algorithm according** to  
**data** on a number of nodes stored in the first data base (35);  
physical network capacity...

...CLAIMS the logical network independently of the traffic condition by  
executing a logical network topology design **algorithm according**  
to **data** on a number of nodes stored in the first data base (35);  
physical network capacity...

17/5,K/16 (Item 16 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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00638686

**Method of file signature and device for performing the method**  
**Verfahren zur Dateiunterschrift und Einrichtung für seine Durchführung**  
**Procédé de signature d'un fichier informatique et dispositif pour la mise en oeuvre**

PATENT ASSIGNEE:  
BULL CP8, (753213), 68 route de Versailles, B.P. 45, 78430 Louveciennes,  
(FR), (Proprietor designated states: all)

INVENTOR:  
Ugon, Michel, 6, rue des Cepages, F-78310 Maurepas, (FR)

LEGAL REPRESENTATIVE:  
Corlu, Bernard et al (60535), CP8, Direction de la Propriété  
Intellectuelle 36-38, Rue de la Princesse, BP 45, 78431 Louveciennes

Cedex, (FR)  
PATENT (CC, No, Kind, Date): EP 619660 A1 941012 (Basic)  
EP 619660 B1 020410  
EP 94400739 940405;

APPLICATION (CC, No, Date):  
PRIORITY (CC, No, Date): FR 934073 930406

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; LU; NL; SE  
INTERNATIONAL PATENT CLASS: H04L-009/32 ; G07F-007/10

CITED PATENTS (EP B): EP 77238 A; EP 281225 A

CITED REFERENCES (EP B):

IEEE INFOCOM '92 PROCEEDINGS, FLORENCE IT, IEEE NEW YORK US pages 2045 -  
2054 Y. DESMEDT ET AL. 'Multi-receiver/multi-sender network security:  
efficient authenticated multicast/feedback'  
NTT REVIEW, vol.5, no.1, Janvier 1993, TOKYO JP pages 75 - 81 T. OKAMOTO  
ET AL. 'On comparison of practical digital signature schemes';

ABSTRACT EP 619660 A1 (Translated)

The invention relates to a method of signing a main computer file (FP), of the type consisting in making circuits of an information processing device (1,3,4) calculate at least one signature (SG) of the file, taking into account at least one secret data item (S; Sd) specific to the signatory, but unknown to the latter, memorised in a secret memory area of a portable electronic object (4), with a memory and processing circuits, available to the signatory, and in linking the calculated signature to the main file.

It is characterised in that, upon the calculation of each signature, it further consists in taking account of at least a part of the main file, so that the signature is a function of the secret data item of the signatory and of each part of the file taken into account, and in creating a secondary file (FS) and in writing therein at least some information (IN) making it possible to identify each part of the main file having served for the calculation of this signature, and in linking the secondary file, on the one hand to the corresponding signature, and, on the other hand, to the signed file.

TRANSLATED ABSTRACT WORD COUNT: 199

ABSTRACT EP 619660 A1

L'invention concerne un procédé de signature d'un fichier principal (FP) informatique, du genre consistant à faire calculer, par des circuits d'un dispositif (1,3,4) de traitement de l'information, au moins une signature (SG) du fichier, en prenant en compte au moins une donnée secrète (S; Sd) propre au signataire, mais inconnue de celui-ci, mémorisée dans une zone de mémoire secrète d'un objet portatif électronique (4), à mémoire et circuits de traitement, à la disposition de ce signataire, et à lier la signature calculée au fichier principal.

Il est caractérisé en ce que, lors du calcul de chaque signature, il consiste en outre à prendre en compte, au moins une partie du fichier principal, de sorte que la signature est fonction de la donnée secrète du

signataire et de chaque partie prise en compte du fichier, et a creer un fichier secondaire (FS) et y inscrire au moins des informations (IN) permettant d'identifier chaque partie du fichier principal ayant servi au calcul de cette signature, et a lier le fichier secondaire d'une part a la signature correspondante et d'autre part au fichier signe. (voir 1 image dans le document original)

ABSTRACT WORD COUNT: 190

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

Change: 010829 A1 Legal representative(s) changed 20010712  
Application: 941012 A1 Published application (A1with Search Report  
;A2without Search Report)  
Lapse: 030507 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020410, GR 20020410,  
Lapse: 030305 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020410,  
Change: 020109 A1 Legal representative(s) changed 20011116  
Grant: 020410 B1 Granted patent  
Oppn None: 030402 B1 No opposition filed: 20030113  
Examination: 941123 A1 Date of filing of request for examination:  
940926  
Examination: 970813 A1 Date of despatch of first examination report:  
970630

LANGUAGE (Publication,Procedural,Application): French; French; French

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(French)	EPABF2	1568
CLAIMS B	(English)	200215	1238
CLAIMS B	(German)	200215	1210
CLAIMS B	(French)	200215	1273
SPEC A	(French)	EPABF2	6629
SPEC B	(French)	200215	6473
Total word count - document A			8198
Total word count - document B			10194
Total word count - documents A + B			18392

INTERNATIONAL PATENT CLASS: H04L-009/32 ...

...CLAIMS S, Sd);

- recalculating the signature in the device by executing a calculation with the signature algorithm, based on the secret data item in the secret memory zone and on the identified chosen file portion, and taking...

...SG) by using a signature algorithm (Aa, Ao) and by executing a calculation with this algorithm, based on the secret data item of the portable object and on the file, a result of this calculation constituting...

17/5,K/32 (Item 32 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00557889 \*\*Image available\*\*  
**SEMI-RELIABLE DATA TRANSPORT**  
**TRANSPORT DE DONNEES SEMI-FIABLE**

Patent Applicant/Assignee:  
INDUS RIVER NETWORKS INC,  
KEMP Bradford H,  
MCCANN Benjamin E,

Inventor(s):  
KEMP Bradford H,  
MCCANN Benjamin E,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200021262 A1 20000413 (WO 0021262)  
Application: WO 99US22919 19991001 (PCT/WO US9922919)  
Priority Application: US 98167097 19981005

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE  
GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK  
MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ  
VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM  
AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM  
GA GN GW ML MR NE SN TD TG

Main International Patent Class: H04L-029/06

International Patent Class: H04L-001/18

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 9169

#### English Abstract

A new type of communication protocol provides semi-reliable transport of data over a data channel, such as over the Internet. The new type of protocol limits the number of retransmissions of unsuccessfully delivered data and may eventually "give up" on successfully delivering particular data and go on sending subsequent data to the destination. When a reliable communication protocol, such as TCP/IP is tunneled between two computers over a virtual connection which uses the new type of semi-reliable protocol, overall error control of data passing between the two computers involves elements of error control implemented by both the semi-reliable protocol and the reliable protocol. This overall error control can provide higher throughput than provided by using either a completely reliable protocol (e.g., TCP) for the virtual connection, or a completely unreliable protocol (e.g., UDP) for the virtual connection. This advantage can be even more pronounced if the data stream is compressed or encrypted before being passed over the virtual connection using a technique which maintains state from one data packet to another.

#### French Abstract

Ce nouveau type de protocole de communication assure un transport de donnees semi-fiable sur un canal de donnees, sur l'Internet par exemple. Ce nouveau type de protocole limite le nombre de retransmissions de donnees non delivrees et peut finalement delaisser la delivrance menee a bonne fin de donnees particulieres et envoyer des donnees subsequentes vers leur destination. Lorsqu'un protocole fiable de communication, par exemple TCP/IP est soumis a un effet tunnel entre deux ordinateurs sur une connexion virtuelle utilisant ce nouveau type de protocole semi-fiable, le traitement d'erreur global passant entre les deux ordinateurs met en jeu des elements de traitement d'erreur

implementes tant par le protocole semi-fiabre que par le protocole fiable. Ce traitement d'erreur global assure un debit de traitement superieur a celui obtenu au moyen d'un protocole totalement fiable (TCP, par exemple) pour la connexion virtuelle ou au moyen d'un protocole totalement depourvu de fiabilite (UDP, par exemple) pour la connexion virtuelle. Cet avantage est encore plus manifeste si le train de donnees est compresse ou chiffre avant de passer par la connexion virtuelle et ce, par utilisation d'une technique maintenant un etat d'un paquet de donnees a un autre.

Main International Patent Class: H04L-029/06

International Patent Class: H04L-001/18

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... outbound data) prior to transmitting the third packet.

The first software module implements a state **dependent data processing algorithm**, such as a compression or an encryption algorithm, in which data processing of the outbound...

Claim

... 6 The method of claim 1 further comprising processing raw outbound data using a state- **dependent data processing algorithm** to produce the outbound data wherein data processing of the raw outbound data 5 depends...



17/5,K/35 (Item 35 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00516884 \*\*Image available\*\*

**SECURITY SYSTEM AND METHOD FOR BUSINESS TRANSACTIONS WITH CUSTOMERS**  
**SYSTEME ET PROCEDE DE SECURITE DESTINES A DES TRANSACTIONS COMMERCIALES**  
**AVEC DES CLIENTS**

Patent Applicant/Assignee:

FIRST UNION CORPORATION,

Inventor(s):

MORRISON William T Jr,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9948236 A2 19990923

Application: WO 99US4041 19990225 (PCT/WO US9904041)

Priority Application: US 9844503 19980319

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH  
GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN  
MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW  
GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE  
DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR  
NE SN TD TG

Main International Patent Class: H04L

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 10408

English Abstract

A security system and method by which customers may be readily identified prior to cashing of checks, other cash-out transactions, or other business transactions, wherein each customer is issued an individualized customer identification card having at least a personalized multidigit customer identification number encoded thereon and, optionally, also encoded with additional personal data identifying the customer. To cash a check or conduct another form of business transaction, whether at an attended customer service station or at an automated machine, the encoded data on the identification card is read and the customer is required to input the personalized identification number assigned to the card. The transaction is not approved unless the customer correctly inputs the assigned identification number. In contemplated embodiments, the encoded data along with data regarding the transaction requested by the customer, e.g., obtained by optical scanning of a check or other item presented by the customer, is transmitted to a central computer system for execution of an approval-disapproval analysis or algorithm.

French Abstract

L'invention concerne un systeme et un procede de securite permettant d'identifier facilement des clients avant l'encaissement de cheques, d'autres transactions de paiement ou d'autres transactions commerciales, chaque client etant dote d'une carte d'identification de client personnalisee codee avec au moins un numero d'identification personnel de client a plusieurs chiffres et eventuellement codee egalement avec des donnees personnelles supplementaires identifiant le client. Pour l'encaissement d'un cheque ou pour une autre forme de transaction commerciale, que ce soit a un guichet pour clients ou a une machine automatique, les donnees codees sur la carte d'identification sont lues et le client est prie d'entrer le numero d'identification personnel attribue a la carte. La transaction ne s'effectue pas tant que le client

n'entre pas correctement le numero d'identification attribue. Dans des modes de realisation prevus, les donnees codees et les donnees concernant la transaction demandee par le client, obtenues par exemple par balayage optique d'un cheque ou d'un autre produit presente par le client, sont transmises ensemble a un systeme informatique central qui execute une analyse ou un algorithme d'approbation-desapprobation.

Main International Patent Class: **H04L**

Fulltext Availability:

Claims

Claim

... for executing upon each cash-out

30

transaction requested by the customer an approval-disapproval **algorithm based on** the historical **data** on the customer.

28. A security method for use by a business for establishing customer ...determination of approval or disapproval of each cash-out transaction comprises executing an approval-disapproval **algorithm based on** the historical **data** on the customer

17/5,K/36 (Item 36 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00510338 \*\*Image available\*\*  
**METHODS AND APPARATUS FOR INTERNET BASED FINANCIAL TRANSACTIONS WITH  
EVIDENCE OF PAYMENT  
PROCEDE ET DISPOSITIF POUR TRANSACTIONS FINANCIERES INTERNET AVEC TRACE DE  
PAIEMENT**

Patent Applicant/Assignee:  
SARANAC SOFTWARE INC,

Inventor(s):  
LEWIS Richard,  
DWYER Tara,  
ABDELSADEK Mohammed,  
HAN Donald,  
ROGOFF Jonathon,  
PARKS Louis,

Patent and Priority Information (Country, Number, Date):  
Patent: WO 9941690 A1 19990819

Application: WO 99US3099 19990212 (PCT/WO US9903099)  
Priority Application: US 9823724 19980213

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH  
GM HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW  
MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH  
GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES  
FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN  
TD TG

Main International Patent Class: G06F-017/60  
International Patent Class: H04L-009/00

Publication Language: English  
Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 22355

#### English Abstract

A system and method for conducting Internet-based financial transaction between a client (2n) and a server (4). The client has a processor, a printer, a client authentication module, a module for issuing a transaction request, and a unique digital signature. The server has a network including a transaction server (180), a transaction database (170), a server authentication module, and a receipt generation module. An Internet connection (30) is used between the client (2n) and the server network (4). The transaction execution system includes authentication, wherein the client authentication module and the server authentication modules communicate via the Internet connection (30) and are authenticated to each other. A transaction module is included wherein, in response to the client and server being authenticated, the client (2n) issues a transaction request to the server (4) and the transaction server (180), in response to a client transaction request, executes an electronic payment transaction at the server and records the transaction in the transaction database (170). The server receipt generation module, in response to an executed electronic payment, then generates a receipt and transmits the receipt to the client (2n).

#### French Abstract

L'invention concerne un systeme et un procede permettant les transactions financieres Internet entre un client (2n) et un serveur (4). Le client dispose d'un processeur, d'une imprimante, d'un module d'authentification de client, d'un module de demande de transaction et

d'une empreinte numerique propre. Le serveur dispose d'un reseau comprenant un serveur de transaction (180), une base de donnees de transactions (170), un module d'authentification de serveur et un module d'etablissement de reçu. Une liaison Internet (30) est etablie entre le client (2n) et le reseau du serveur (4). Le systeme d'execution de transaction procede a l'authentification, moyennant quoi le module d'authentification du client et le module d'authentification du serveur communiquent entre eux sur ladite liaison (30) et s'identifient mutuellement. Le module de transaction fonctionne comme suit: apres l'authentification du client et du serveur, le client (2n) envoie une demande de transaction au serveur (4) et, en reponse a cette demande, le serveur de transaction (180) execute une transaction de paiement electronique a l'echelon du serveur, avec enregistrement dans la base de donnees (170). Suite a ladite execution, le module d'etablissement de reçu du serveur etablit un reçu qu'il transmet au client (2n).

International Patent Class: H04L-009/00

Fulltext Availability:

Detailed Description

Claims

#### Detailed Description

- ... client private key, and a client identification password, a hash module for performing a hash **algorithm based on an input data**, a hash of at least one of the client public key, private key and identification...
- ...server private key, and a server identification password, a hash module for performing a hash **algorithm based on an input data**, a hash of at least one of the server public key, private key and identification...a client private key, a client identification password, a hash module for performing a hash **algorithm based on an input data**, a hash of at least one of the client public key, private key and identification...
- ...a server private key, a server identification password, a hash module for performing a hash **algorithm based on an input data**, a hash of at least one of the server public key, private key and identification...

#### Claim

- ... client private key, and a client identification password, a hash module for performing a hash **algorithm based on an input data**, a hash of at least one of the client public key, private key and identification...
- ...server private key, and a server identification password, a hash module for performing a hash **algorithm based on an input data**, a hash of at least one of the server public key, private key and identification...a client private key, a client identification password, a hash module for performing a hash **algorithm based on an input data**, a hash of at least one of the client public key, private key and identification...
- ...a server private key, a server identification password, a hash module for performing a hash **algorithm based on an input data**, a hash of at least one of the server public key, private key and identification...

17/5,K/38 (Item 38 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00447207 \*\*Image available\*\*

**AN ADAPTIVE PRE-EQUALIZER FOR USE IN DATA COMMUNICATIONS EQUIPMENT**  
**PRE-EGALISEUR ADAPTABLE POUR UTILISATION DANS UN EQUIPEMENT DE TRANSMISSION**  
**DE DONNEES**

Patent Applicant/Assignee:

GLOBESPAN TECHNOLOGIES INC,

Inventor(s):

HERZBERG Hanan,

LANGBERG Ehud,

WANG Jin-Der,

WERNER Jean-Jacques,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9837671 A1 19980827

Application: WO 97US2758 19970225 (PCT/WO US9702758)

Priority Application: WO 97US2758 19970225

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

BR CA CN JP KR MX RU AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Main International Patent Class: H04L-025/03

International Patent Class: H04L-25:49 ; H04B-15:00

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 5475

English Abstract

The problem of error propagation is addressed by using the communications channel (15) to adapt a pre-equalizer of a transmitter (10) to the changes in the response of the communications channel (15). In particular, the pre-equalizer adapts to changes in the communications channel (15) by processing an error signal that is communicated over a reverse channel (16) by a corresponding receiver (20).

French Abstract

L'invention vise a resoudre le probleme de la propagation d'erreurs, au moyen d'une voie de communication (15) servant a adapter un pre-egaliseur d'un emetteur (10) aux modifications de reponse de la voie de communication (15). En particulier, le pre-egaliseur s'adapte aux modifications dans la voie de communication (15), par traitement d'un signal d'erreur qui est transmis sur une voie de retour (16) par un recepteur correspondant (20).

Main International Patent Class: H04L-025/03

International Patent Class: H04L-25:49 ...

Fulltext Availability:

Detailed Description

Detailed Description

... data available in receiver 20 for the K samples (whereas the adaptation of the sign algorithm is based on one sample per data block of length K), and 0 avoiding the need for synchronization between j(n) and...

17/5,K/43 (Item 43 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00390706 \*\*Image available\*\*  
**COMMUNICATION METHOD USING COMMON CRYPTOGRAPHIC KEY**  
**METHODE DE COMMUNICATION UTILISANT UNE CLE CRYPTOGRAPHIQUE COMMUNE**

Patent Applicant/Assignee:  
CARD CALL SERVICE CO LTD,

Inventor(s):

BABA Yoshimi,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9731449 A1 19970828

Application: WO 97JP433 19970219 (PCT/WO JP9700433)

Priority Application: JP 9670832 19960221; JP 9670835 19960221; JP 96210376 19960708

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AU BG BR CA CN CU CZ HU IL KR LT MX NO NZ PL RO RU SG SK TR UA VN

Main International Patent Class: H04L-009/08

Publication Language: Japanese

#### English Abstract

A communication method using a common cryptographic key by which security against various kinds of attacks can be improved while the preparation of a common cryptographic key prepared at the time of performing communication or a cryptographic communication system on a network is simplified. At a center, a personal key peculiar to each entity is prepared by applying Fourier transformation with weight function and center matrix to the identifier of each entity (procedures 2-1 and 2-2) and performing randomized transformation based on one-time random number data prepared by artificial processing of the entities (procedures 2-3 to 2-5) and, at the same time, an identifier converting algorithm is prepared based on the random number data and Fourier transformation with weight function (procedure 2-6) and distributes the algorithm and personal keys to the entities. Each entity prepares a common key used for performing cryptographic communication with a partner by applying the identifier converting algorithm and personal key to the identifier of the partner.

#### French Abstract

Methode de communication utilisant une cle cryptographique commune, ce qui permet d'ameliorer la securite contre des atteintes diverses tout en simplifiant la preparation de cette cle cryptographique commune au moment de la communication ou le systeme de communication cryptographique sur un reseau. Au niveau d'un centre, une cle personnelle specifique a chaque entite est elaboree en appliquant une transformee de Fourier avec fonction de ponderation et matrice centrale a l'identifieur de chaque entite (procedure 2-1 et 2-2) et en accomplissant une transformation aleatoire sur la base de donnees numeriques aleatoires a usage unique etablies par traitement artificiel des entites (procedure 2-3 et 2-5) tandis que, simultanement, un algorithme convertisseur d'identifieur est etabli sur la base des donnees numeriques aleatoires et de la transformee de Fourier avec fonction de ponderation (procedure 2-6) et que l'algorithme et les cles personnelles sont distribues aux entites. Chaque entite etablit une cle commune utilisee pour la communication cryptographique avec un partenaire en appliquant l'algorithme convertisseur d'identifieur et la cle personnelle a l'identifieur du partenaire.

Main International Patent Class: H04L-009/08

English Abstract

...entities (procedures 2-3 to 2-5) and, at the same time, an identifier converting **algorithm** is prepared **based on** the random number **data** and Fourier transformation with weight function (procedure 2-6) and distributes the algorithm and personal...

Patent  
Bib

Set	Items	Description
S1	7769	CIPHER? OR CYPHER?
S2	37805	ALGORITHM? ?
S3	1725533	DATA
S4	126202	(BASED()ON OR ACCORDING? OR CONTINGEN EPENDING) (3W) S3
S5	232	(S1 OR S2) (5N) S4
S6	89	S5 AND IC=G06F
S7	25	S6 AND AY=1963:1999
S8	25	IDPAT (sorted in duplicate/non-duplicate order)
S9	25	IDPAT (primary/non-duplicate records only)
S10	4964973	VALUE? ? OR NUMBER? ? OR INFORMATION OR TERM? ? OR TEXT OR WORD? ?
S11	255635	(BASED()ON OR ACCORDING? OR CONTINGENT? OR DEPENDENT? OR D- EPENDING) (3W) S10
S12	388	(S1 OR S2) (5N) S11
S13	125	S12 AND IC=H04L
S14	38	S13 AND AY=1963:1999
S15	38	S14 NOT S9
S16	38	IDPAT (sorted in duplicate/non-duplicate order)
S17	38	IDPAT (primary/non-duplicate records only)
S18	65	S5 AND IC=H04L
S19	18	S18 AND AY=1963:1999
S20	13	S19 NOT (S9 OR S17)
S21	13	IDPAT (sorted in duplicate/non-duplicate order)
S22	13	IDPAT (primary/non-duplicate records only)
S23	34	S18 AND PY=1976:1999
S24	22	S23 NOT (S9 OR S17 OR S22)
S25	22	IDPAT (sorted in duplicate/non-duplicate order)
S26	22	IDPAT (primary/non-duplicate records only)

File 347:JAPIO Nov 1976-2005/Jul(Updated 051102)  
(c) 2005 JPO & JAPIO

File 350:Derwent WPIX 1963-2005/UD,UM &UP=200581  
(c) 2005 Thomson Derwent



9/5/3 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014685920 \*\*Image available\*\*  
WPI Acc No: 2002-506624/200254  
XRPX Acc No: N02-400800

**Computer file requests latency reduction in Internet, involves accessing file whose access probability exceeds or equals server's prefetch threshold value, if there is no current copy of file available on computer**

Patent Assignee: UNIV CALIFORNIA (REGC )  
Inventor: JIANG Z; KLEINROCK L  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6385641	B1	20020507	US 9892108	A	19980605	200254 B

Priority Applications (No Type Date): US 9892108 A 19980605  
Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6385641	B1	30	G06F-015/16	

Abstract (Basic): US 6385641 B1

NOVELTY - An access probability for each computer file is computed using an application specific **algorithm**, **based on data** regarding file access at requested local computer. A prefetch threshold is calculated using a specific algorithm, based on current network conditions of each server. Each file whose access probability exceeds or equals server's prefetch threshold is accessed, if there is no current copy of file in the computer.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for computer files request latency reduction apparatus.

USE - For reducing latency of request for files in computer in network such as Internet.

ADVANTAGE - The files to be prefetched are determined by the access probability, to minimize the average cost of requesting a file. Hence the operation efficiency is improved.

DESCRIPTION OF DRAWING(S) - The figure shows the simple flow diagram of computer files request latency reduction process..

pp; 30 DwgNo 14/16

Title Terms: COMPUTER; FILE; REQUEST; LATENT; REDUCE; ACCESS; FILE; ACCESS; PROBABILITY; EQUAL; SERVE; THRESHOLD; VALUE; NO; CURRENT; COPY; FILE; AVAILABLE; COMPUTER

Derwent Class: T01

International Patent Class (Main): G06F-015/16

International Patent Class (Additional): G06F-015/177

File Segment: EPI

9/5/4 (Item 4 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014018856 \*\*Image available\*\*  
WPI Acc No: 2001-503070/200156  
XRPX Acc No: N01-373096

**Electronic security key for electronic coin acceptor, has encryption algorithm that generates encrypted password data which is transmitted to electronic coil acceptor, to enable coin programming**

Patent Assignee: IDX INC (IDXI-N)

Inventor: JUDS S

Number of Countries: 004 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
CA 2323844	A1	20010515	CA 2323844	A	20001019	200156	B
AU 200066536	A	20010712	AU 200066536	A	20001016	200156	
GB 2357620	A	20010627	GB 200024934	A	20001011	200156	
AU 753887	B	20021031	AU 200066536	A	20001016	200282	
US 6564997	B1	20030520	US 99439995	A	19991115	200336	
GB 2357620	B	20031203	GB 200024934	A	20001011	200403	
CA 2323844	C	20051018	CA 2323844	A	20001019	200570	

Priority Applications (No Type Date): US 99439995 A 19991115

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
CA 2323844	A1	E	49	H04L-009/32	
AU 200066536	A			G06F-007/02	
GB 2357620	A			G07D-005/00	
AU 753887	B			G07D-005/00	Previous Publ. patent AU 200066536
US 6564997	B1			G06K-005/00	
GB 2357620	B			G07D-005/00	
CA 2323844	C	E		H04L-009/32	

Abstract (Basic): CA 2323844 A1

NOVELTY - The electronic security key circuit includes microcontroller which transmits request message to the coin acceptor to transmit the identification number data and random number data generated by coin acceptor. **Based on** transmitted requested data, an encryption **algorithm** generates a password data and transmits to electronic coin acceptor, to effect an enabled state of coin acceptor for coin programming.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for tilt illuminator.

USE - For electronic coin acceptor in coin operated game devices such as slot machine and video poker machine.

ADVANTAGE - By transmitting an encrypted password data to electronic coin acceptor to effect enable state for coin programming, the tracking of individuals making changes in coin acceptor program is enabled and hence the individuals responsible for current coin acceptor programs is identified easily. Since encrypted password data is transmitted along with identification number data and random number data, the electronic security key is enabled to verify authenticity of electronic security key.

DESCRIPTION OF DRAWING(S) - The figure shows the flow chart illustrating communication between electronic security key and coin acceptor.

pp; 49 DwgNo 6/11

Title Terms: ELECTRONIC; SECURE; KEY; ELECTRONIC; COIN; ACCEPT; ENCRYPTION; ALGORITHM; GENERATE; ENCRYPTION; PASSWORD; DATA; TRANSMIT; ELECTRONIC; COIL; ACCEPT; ENABLE; COIN; PROGRAM

Derwent Class: T01; T05; W01; W04

International Patent Class (Main): G06F-007/02 ; G06K-005/00; G07D-005/00; H04L-009/32

9/5/13 (Item 13 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
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012389655 \*\*Image available\*\*  
WPI Acc No: 1999-195762/199917  
Related WPI Acc No: 1998-045028; 2002-262277  
XRPX Acc No: N99-144032

Computer implemented electronic information processing system e.g. for  
MIDI data - performs processing of data classified from main information  
based on predefined algorithm which is produced according to  
additional data included in main information

Patent Assignee: YAMAHA CORP (NIHG )

Inventor: TARUGUCHI H

Number of Countries: 002 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 11039796	A	19990212	JP 97193128	A	19970702	199917	B
GB 2354857	A	20010404	GB 9713555	A	19970626	200120	
			GB 200023084	A	20000920		
GB 2354858	A	20010404	GB 9713555	A	19970626	200120	
			GB 200023087	A	20000920		
GB 2354860	A	20010404	GB 9713555	A	19970626	200120	
			GB 200023095	A	20000920		
GB 2354857	B	20010516	GB 9713555	A	19970626	200128	
			GB 200023084	A	20000920		
GB 2354858	B	20010530	GB 9713555	A	19970626	200131	
			GB 200023087	A	20000920		
GB 2354860	B	20010530	GB 9713555	A	19970626	200131	
			GB 200023095	A	20000920		
JP 3178378	B2	20010618	JP 97193128	A	19970702	200136	

Priority Applications (No Type Date): JP 97148612 A 19970522; JP 96191528 A 19960702

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 11039796	A		24	G11B-020/10	
GB 2354857	A			G06F-001/00	Derived from application GB 9713555
GB 2354858	A			G06F-001/00	Derived from application GB 9713555
GB 2354860	A			G06F-001/00	Derived from application GB 9713555
GB 2354857	B			G06F-001/00	Derived from application GB 9713555
GB 2354858	B			G06F-001/00	Derived from application GB 9713555
GB 2354860	B			G06F-001/00	Derived from application GB 9713555
JP 3178378	B2		25	G10H-001/00	Previous Publ. patent JP 11039796

Abstract (Basic): JP 11039796 A

NOVELTY - A portion of data groups in main information is classified based on predetermined small data pieces of 1 bit size characteristics. The classified data are processed based on a predefined algorithm which is produced based on some additional copyright display data and recording format data included in the main information.

USE - For processing of MIDI data of electronic musical instrument using personal computer.

ADVANTAGE - Prevents unjust operation. DESCRIPTION OF DRAWING(S) - The figure shows data conversion format used during MIDI data processing.

Dwg.1/10

Title Terms: COMPUTER; IMPLEMENT; ELECTRONIC; INFORMATION; PROCESS; SYSTEM; MIDI; DATA; PERFORMANCE; PROCESS; DATA; CLASSIFY; MAIN; INFORMATION;

BASED; PREDEFINED; ALGORITHM; PRODUCE; ACCORD; ADD; DATA; MAIN;  
INFORMATION

Derwent Class: P85; P86; T03; W04

International Patent Class (Main): **G06F-001/00** ; G10H-001/00; G11B-020/10

International Patent Class (Additional): **G06F-012/14** ; G09C-005/00;

G10K-015/02; G10L-011/00; G11B-020/00; H04N-001/32

File Segment: EPI; EngPI

9/5/14 (Item 14 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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012320863 \*\*Image available\*\*  
WPI Acc No: 1999-126969/199911  
XRPX Acc No: N99-093149

Automatic installation system of latest version of control software for  
peripheral component of computer - updates memory relevant control  
software automatically based on driver difference data and updating  
algorithm corresponding to connected peripheral equipment

Patent Assignee: HITACHI LTD (HITA )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 11003220	A	19990106	JP 97153321	A	19970611	199911 B

Priority Applications (No Type Date): JP 97153321 A 19970611

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 11003220	A	6	G06F-009/06	

Abstract (Basic): JP 11003220 A

NOVELTY - The personal computer system recognises the connection of  
peripheral equipment (111) automatically and loads into memory relevant  
control software (105). This software updates itself to corresponding  
version using the driver difference data (113) and updating algorithm  
(112).

USE - For personal computer systems during peripheral equipment  
connection.

ADVANTAGE - Ensures use of latest version of software. DESCRIPTION  
OF DRAWING(S) - The figure shows block diagram of the computer system.  
(105) Control software; (111) Peripheral equipment; (112) Updating  
algorithm; (113) Driver difference data.

Dwg.1/4

Title Terms: AUTOMATIC; INSTALLATION; SYSTEM; LATE; VERSION; CONTROL;  
SOFTWARE; PERIPHERAL; COMPONENT; COMPUTER; UPDATE; MEMORY; RELEVANT;  
CONTROL; SOFTWARE; AUTOMATIC; BASED; DRIVE; DIFFER; DATA; UPDATE;  
ALGORITHM; CORRESPOND; CONNECT; PERIPHERAL; EQUIPMENT

Derwent Class: T01

International Patent Class (Main): G06F-009/06

International Patent Class (Additional): G06F-013/10

9/5/16 (Item 16 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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012130010 \*\*Image available\*\*  
WPI Acc No: 1998-546922/199847  
XRPX Acc No: N98-426152

**Automatic software production apparatus - develops partial program source  
into frame program source using developing algorithm , based on  
input data , which is further developed into real program source**

Patent Assignee: TOKYO ELECTRIC CO LTD (TODK )  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 10240514	A	19980911	JP 9744115	A	19970227	199847 B

Priority Applications (No Type Date): JP 9744115 A 19970227

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 10240514	A	6	G06F-009/06	

Abstract (Basic): JP 10240514 A

The apparatus has an input unit, through which data (12,13) including information regarding screen item definition and partial program source developing condition are input. A controller controls the input operation.

The partial program source is developed into a frame program source, using a developing **algorithm based on** the input **data** . Then, the developed partial program source is further developed into a real program source.

ADVANTAGE - Enables supplying partial program source corresponding to demand specification of software. Conserves memory capacity and improves usage efficiency of memory. Improves operativity, by simplifying selection of partial program source.

Dwg.2/7

Title Terms: AUTOMATIC; SOFTWARE; PRODUCE; APPARATUS; DEVELOP; PROGRAM;  
SOURCE; FRAME; PROGRAM; SOURCE; DEVELOP; ALGORITHM; BASED; INPUT; DATA;  
DEVELOP; REAL; PROGRAM; SOURCE

Derwent Class: T01

International Patent Class (Main): G06F-009/06

File Segment: EPI

9/5/20 (Item 20 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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011656699 \*\*Image available\*\*

WPI Acc No: 1998-073607/199807

XRPX Acc No: N98-058978

**File protective management apparatus for data processor - has master management identification holder which stores predetermined data with predetermined algorithm that is formed based on time data**

Patent Assignee: FUJITSU LTD (FUIT )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 9311807	A	19971202	JP 96127056	A	19960522	199807 B

Priority Applications (No Type Date): JP 96127056 A 19960522

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 9311807	A		5	G06F-012/00	

Abstract (Basic): JP 9311807 A

The apparatus includes a starting unit (6) which starts master management identification generator (8). The ID generator produces a predetermined data with a predetermined **algorithm**, **based on a time data**. A master management ID holder (9) stores the generated ID data.

ADVANTAGE - Master management ID can be varied for short time.  
Prevents illegal access of time.

Dwg.1/3

Title Terms: FILE; PROTECT; MANAGEMENT; APPARATUS; DATA; PROCESSOR; MASTER;  
MANAGEMENT; IDENTIFY; HOLD; STORAGE; PREDETERMINED; DATA; PREDETERMINED;  
ALGORITHM; FORMING; BASED; TIME; DATA

Derwent Class: T01

International Patent Class (Main): **G06F-012/00**

International Patent Class (Additional): **G06F-012/14**

File Segment: EPI

9/5/24 (Item 24 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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008736031 \*\*Image available\*\*

WPI Acc No: 1991-240047/199133

XRPX Acc No: N91-183071

**Image mask generation method for image processing - has mask pixel value  
determined according to pre-specified algorithm based on mask creation  
array pixel value**

Patent Assignee: CROSFIELD ELECTRONICS LTD (CROE )

Inventor: FREEMAN S

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 441498	A	19910814	EP 91300490	A	19910123	199133 B
EP 441498	A3	19930317	EP 91300490	A	19910123	199350

Priority Applications (No Type Date): GB 902478 A 19900205

Cited Patents: NoSR.Pub; 2.Jnl.Ref; EP 344976; GB 2140257; JP 62019970

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 441498	A				

Designated States (Regional): DE GB

Abstract (Basic): EP 441498 A

The method of generating an image mask defining a region of an image consists of the steps of for each pixel of the image, determining whether the colour of the pixel satisfies predetermined conditions. If it does, a control data creation array is positioned over the corresponding mask pixel.

For each mask pixel a mask value is generated according to a predetermined **algorithm based on** the control **data** creation array pixel values and corresponding current mask pixel values. The creation array has a set of pixels defining a three dimensional profile of data values selected from a group of at least three values.

USE/ADVANTAGE - Method is fast and capable of generating soft-edged masks. (10pp Dwg.No.1/6

Title Terms: IMAGE; MASK; GENERATE; METHOD; IMAGE; PROCESS; MASK; PIXEL; VALUE; DETERMINE; ACCORD; PRE; SPECIFIED; ALGORITHM; BASED; MASK; CREATION; ARRAY; PIXEL; VALUE

Derwent Class: T01

International Patent Class (Additional): **G06F-015/72**

File Segment: EPI



22/5/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015518338 \*\*Image available\*\*  
WPI Acc No: 2003-580485/200355  
XRPX Acc No: N03-461575

**Data ciphering device for facsimile, updates initial value used for encipherment of data in cipher text block chain system, based on data regarding date/year/month and time**

Patent Assignee: MITA IND CO LTD (MTAI )  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 6339035	A	19941206	JP 93151519	A	19930528	200355 B

Priority Applications (No Type Date): JP 93151519 A 19930528

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 6339035	A		8	H04N-001/44	

Abstract (Basic): JP 6339035 A

NOVELTY - A signal obtained by encoding binarized picture data, is enciphered in a cipher text block chain (CBC) system. The cipher text is modulated by a modem (17) received through a public telephone line. The demodulated text is decoded and changed into ordinary sentence which is decoded by a decoder (16). The value used for encipherment is updated based on data regarding the date/year/month and time.

USE - Data ciphering for facsimile.

ADVANTAGE - Enables performing the enciphering easily and reliably by enciphering the encoded signal in the ciphered text block chain system.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the data ciphering device. (Drawing includes non-English language text).

decoder (16)

modem (17)

pp; 8 DwgNo 1/1

Title Terms: DATA; CIPHER; DEVICE; FACSIMILE; UPDATE; INITIAL; VALUE; DATA;

CIPHER; TEXT; BLOCK; CHAIN; SYSTEM; BASED; DATA; DATE; YEAR; MONTH; TIME

Derwent Class: P85; U21; W01; W02

International Patent Class (Main): H04N-001/44

International Patent Class (Additional): G04G-015/00; G09C-001/00;

**H04L-009/00 ; H04L-009/10 ; H04L-009/12**

File Segment: EPI; EngPI

22/5/9 (Item 9 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
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008505438 \*\*Image available\*\*

WPI Acc No: 1991-009522/199102

XRPX Acc No: N91-007445

**Data ciphering and deciphering system - uses successive individual stages  
each using cipher values dependent on received data**

Patent Assignee: ZAHN M (ZAHN-I)

Inventor: ZAHN M

Number of Countries: 002 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 406457	A	19910109	EP 89112107	A	19890703	199102 B

Priority Applications (No Type Date): EP 89112107 A 19890703  
Cited Patents: DE 3244537; EP 202989

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
EP 406457	A			

Designated States (Regional): DE FR

Abstract (Basic): EP 406457 A

The ciphering and deciphering system uses a number of successive steps (S1...Sn) with the cipher values for each individual step (S1...Sn) determined in dependence on the data to be ciphered via an electronic coding circuit (EC).

In each step (S1...Sn) only part (B) of the data is ciphered, the remainder (A) being unchanged, with the cipher values (K) provided by the cipher generator (KG) dependent only on the unchanged data (A). The number of individual steps (S1...Sn) is sufficient to ensure that all the data is ciphered at least once.

USE - For ensuring security of computer data.

Dwg.1/2

Title Terms: DATA; CIPHER; DECIPHER; SYSTEM; SUCCESSION; INDIVIDUAL; STAGE;  
CIPHER; VALUE; DEPEND; RECEIVE; DATA

Derwent Class: T01; W01

International Patent Class (Additional): H04L-009/06

File Segment: EPI

26/5/1 (Item 1 from file: 347)  
DIALOG(R)File 347:JAPIO  
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06277702 \*\*Image available\*\*  
LICENSE CARD MANUFACTURING SYSTEM

PUB. NO.: 11-219291 [JP 11219291 A]  
PUBLISHED: August 10, 1999 ( 19990810)  
INVENTOR(s): YAMAMOTO KAZUYUKI  
APPLICANT(s): NIPPON CHEMICON CORP  
APPL. NO.: 10-035484 [JP 9835484]  
FILED: February 02, 1998 (19980202)  
INTL CLASS: G06F-009/06; G06F-012/14; G09C-001/00; H04L-009/10 ;  
H04L-009/32

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide a license card manufacturing system of for preventing decoding key data from being illegally used by a third person.

SOLUTION: In this manufacture system of the license card for writing the decoding key data from a master IC card for storing at least the decoding key data for decoding ciphered program data and duplication number-of-times data to an IC card and performing duplication, when the decoding key data are written to the IC card, the decoding key data **ciphered based on** prescribed common key **data** are outputted from the master IC card. The ciphered decoding key data are restored by the common key data and stored in the IC card and the duplication number-of-times data are subtracted every time the write is executed into the IC card.

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26/5/3 (Item 3 from file: 347)  
DIALOG(R)File 347:JAPIO  
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06168307 \*\*Image available\*\*  
CIPHER CONVERSION METHOD, CIPHER CONVERSION APPARATUS, DECODING METHOD,  
DECODING APPARATUS, AND DATA COMMUNICATION SYSTEM

PUB. NO.: 11-109853 [JP 11109853 A]  
PUBLISHED: April 23, 1999 ( 19990423)  
INVENTOR(s): AIKAWA SHIN  
TAKARAGI KAZUO  
KOREEDA HIROYUKI  
SASAMOTO MANABU  
OKAMOTO HIROO  
NOGUCHI TAKAHARU  
FURUYA SOICHI  
HIRAHATA SHIGERU  
APPLICANT(s): HITACHI LTD  
APPL. NO.: 10-222636 [JP 98222636]  
FILED: August 06, 1998 (19980806)  
PRIORITY: 09213327 [JP 979213327], JP (Japan), August 07, 1997  
(19970807)  
INTL CLASS: G09C-001/00; H04L-009/06  
ABSTRACT

PROBLEM TO BE SOLVED: To make it possible to dynamically control a circulation shift from a key without **depending** upon conversion **data** and to execute **cipher** conversion having a high degree of random characteristics with a simple constitution by determining the selection sequence of a circulation shift processing selection means based on the data for determining shift number selection sequence.

SOLUTION: Inputted plaintext C101 is separated to leftmost 32 bit L[1] and rightmost 32 bit R[1] and thereafter, the cipher conversion from a conversion section first stage 201 to conversion section 10th stage 203 is repetitively executed and finally L[11] of the leftmost 32 bits and R[11] of the rightmost 32 bits are coupled, thereby, the ciphertext M105 of 64 bits is outputted. The conversion processing in the conversion section N-th stage 202 is defined by control signals G1 to G3 outputted from a circulation shift number forming section N-th stage 205 with the 3 bit values of KG{3N-1}, KG{3N-2}, KG{3N-3} of a work key KA102, work key KB103 and work key KG104 as input. KG{x} denotes the x-bit of KG.

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26/5/4 (Item 4 from file: 347)  
DIALOG(R)File 347:JAPIO  
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06065728 \*\*Image available\*\*  
CIPHER PROCESSOR, CIPHER PROCESSING METHOD AND STORAGE MEDIUM STORING  
CIPHER PROCESSING PROGRAM

PUB. NO.: 11-007239 [JP 11007239 A]  
PUBLISHED: January 12, 1999 ( 19990112)  
INVENTOR(s): OMORI MOTOJI  
MATSUZAKI NATSUME  
TATEBAYASHI MAKOTO  
MARUYAMA MASAKATSU  
APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD  
APPL. NO.: 10-114009 [JP 98114009]  
FILED: April 23, 1998 (19980423)  
PRIORITY: 09105609 [JP 979105609], JP (Japan), April 23, 1997  
(19970423)  
INTL CLASS: G09C-001/00; H04L-009/06 ; H04L-009/18

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide a cipher processor improving safety without remarkably increasing a device scale and a processing time, etc.  
SOLUTION: This device is a data ciphering device 10 performing cipher processing specified by the key data and generating a ciphered message from a plain text, and is provided with a block storage part 102 storing the chain data to be used for affecting the former data to the later data and updating the chain data whenever the cipher processing is performed, a key data fusion part 103 fusing the chain data stored in the block storage part 102 to the key data and generating the fusion key data and the first - eight ciphering parts 105a-h performing the **cipher** processing **based on** the fusion key **data** , generating the **ciphered** message and outputting the middle data generated in a process until the ciphered message is generated. Then, the block storage part 102 updates the chain data stored in itself with the middle data outputted from the first - eight ciphering parts 105a-h as the new chain data to make them use to the next cipher processing.

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26/5/5 (Item 5 from file: 347)  
DIALOG(R)File 347:JAPIO  
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05946292 \*\*Image available\*\*  
AUTHENTICATION SYSTEM AND AUTHENTICATION METHOD

PUB. NO.: 10-229392 [JP 10229392 A]  
PUBLISHED: August 25, 1998 ( 19980825)  
INVENTOR(s): HIKITA JUNICHI  
IKUTO YOSHIHIRO  
CHIMURA SHIGEMI  
APPLICANT(s): ROHM CO LTD [365425] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 09-029182 [JP 9729182]  
FILED: February 13, 1997 (19970213)  
INTL CLASS: [6] H04L-009/16 ; G06K-017/00; G09C-001/00; H04L-009/32 ;  
H04M-015/00  
JAPIO CLASS: 44.3 (COMMUNICATION -- Telegraphy); 44.4 (COMMUNICATION --  
Telephone); 44.9 (COMMUNICATION -- Other); 45.3 (INFORMATION  
PROCESSING -- Input Output Units)  
JAPIO KEYWORD:R073 (TRANSPORTATION -- Automatic Wickets); R303

ABSTRACT

PROBLEM TO BE SOLVED: To provide an IC card which is difficult to be used  
by a person pretending to be a user.

SOLUTION: **Ciphering** authentication data are generated **based on**  
authentication fundamental **data**, including a random number part by using  
a ciphering rule, when a ciphering instruction is given by a ciphering  
authentication data generating means 5. The ciphering rule is varied  
according to the frequency of a given ciphering instruction. The ciphering  
authentication data are transmitted by a transmitting means 7. The  
ciphering authentication data transmitted from a second device B are  
received by a receiving means 9. A prohibiting instruction output means 11  
judges whether or not the ciphering authentication data transmitted from  
the second device B match the ciphering authentication data generated, when  
the same frequency of the ciphering instruction is given to the ciphering  
authentication data-generating means of a first device A and outputs a  
prohibiting instruction to prohibit the transmission of the subject data to  
be transmitted, when a judging result is negative.

26/5/6 (Item 6 from file: 347)  
DIALOG(R)File 347:JAPIO  
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05796628 \*\*Image available\*\*  
CIPHERING KEY SHARING METHOD

PUB. NO.: 10-079728 [JP 10079728 A]  
PUBLISHED: March 24, 1998 ( 19980324)  
INVENTOR(s): BABA YOSHIMI  
APPLICANT(s): CARD KOOLE SERVICE KK [000000] (A Japanese Company or  
Corporation), JP (Japan)  
APPL. NO.: 09-023745 [JP 9723745]  
FILED: February 06, 1997 (19970206)  
INTL CLASS: [6] H04L-009/08  
JAPIO CLASS: 44.3 (COMMUNICATION -- Telegraphy); 44.2 (COMMUNICATION --  
Transmission Systems); 45.9 (INFORMATION PROCESSING -- Other)

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide a ciphering key sharing method in which security against various attacks is enhanced while generating a common ciphering key and simplifying the ciphering communication system on a network.

SOLUTION: Fourier transformation with weighting function and center matrix processing are operated on the identifier of each entity in a center (procedures 2-1, 2-2), randomization transformation is applied the identifier based on transitory random number data generated by an artificial operation of the entity to generate a personal key specific to each entity (procedures 2-3 - 2-5), an identifier transformation algorithm is generated based on the random number data and the Fourier transformation with weighting function (procedure 2-6) and the algorithm and the personal key are distributed to the entity. Each entity acts the identifier transformation algorithm and the personal key onto the identifier of a communication opposite party to generate a common key for ciphering communication with a communication opposite party.

26/5/7 (Item 7 from file: 347)  
DIALOG(R)File 347:JAPIO  
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05654927 \*\*Image available\*\*  
CIPHERING METHOD AND CIPHERING DEVICE

PUB. NO.: 09-269727 [JP 9269727 A]  
PUBLISHED: October 14, 1997 ( 19971014)  
INVENTOR(s): KAWAMURA SHINICHI  
APPLICANT(s): TOSHIBA CORP [000307] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 08-077397 [JP 9677397]  
FILED: March 29, 1996 (19960329)  
INTL CLASS: [6] G09C-001/00; **H04L-009/06** ; **H04L-009/16**  
JAPIO CLASS: 44.9 (COMMUNICATION -- Other); 44.3 (COMMUNICATION --  
Telegraphy)

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide a ciphering method and a ciphering device capable of improving a ciphering strength and a ciphering processing speed by efficiently utilizing resources of hardware and software.

SOLUTION: This ciphering device generates plural intermediate keys K1-Kn based on inputted key data 112 and generates ciphered data 111 by performing a stirring processing with stirring functions fs of plural (n) stages with respect to input block data 110 by using these respectively generated plural intermediate key data. At this time, a key updating part 107 updates the intermediate keys Kn, K1 to be used for agitation functions fs of the last stage and the first stage each time the ciphered data 111 having a prescribed data amount are generated.



26/5/8 (Item 8 from file: 347)  
DIALOG(R)File 347:JAPIO  
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05585397 \*\*Image available\*\*  
SYNCHRONIZATION STREAM CIPHERING DEVICE AND DECODER APPLIED TO THE DEVICE

PUB. NO.: 09-200197 [JP 9200197 A]  
PUBLISHED: July 31, 1997 ( 19970731)  
INVENTOR(s): KURODA KEIICHI  
APPLICANT(s): NEC CORP [000423] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 08-003628 [JP 963628]  
FILED: January 12, 1996 (19960112)  
INTL CLASS: [6] H04L-009/22 ; H04L-009/12  
JAPIO CLASS: 44.3 (COMMUNICATION -- Telegraphy); 44.2 (COMMUNICATION --  
Transmission Systems)

ABSTRACT

PROBLEM TO BE SOLVED: To provide the ciphering device by which the possibility of invasion to security is considerably precluded.

SOLUTION: A ciphering device 1 calculates ciphered data based on received data and a 1st random number string generated from a random number source 11. On the other hand, a decoder 2 decodes the ciphered data based on the ciphered data and a 2nd random number string generated from a random number source 21 and provides an output of data. Furthermore, the decoder 2 is provided with a storage circuit 22 storing sequentially the 2nd random number string and a control circuit 25 extracting a desired random number from the storage circuit 22 to recover synchronization when the synchronization between the ciphering device 1 and the decoder 2 is deviated.

26/5/12 (Item 12 from file: 347)  
DIALOG(R) File 347:JAPIO  
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04639257 \*\*Image available\*\*  
PRIVACY TRANSMISSION SYSTEM

PUB. NO.: 06-311157 [JP 6311157 A]  
PUBLISHED: November 04, 1994 ( 19941104)  
INVENTOR(s): NAKADA KENJI  
APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 05-099415 [JP 9399415]  
FILED: April 26, 1993 (19930426)  
INTL CLASS: [5] H04L-009/00 ; H04L-009/10 ; H04L-009/12 ; G09C-001/10  
JAPIO CLASS: 44.3 (COMMUNICATION -- Telegraphy); 44.9 (COMMUNICATION --  
Other); 45.2 (INFORMATION PROCESSING -- Memory Units)

ABSTRACT

PURPOSE: To provide a privacy system without the leakage of secret with a simple method by ciphering next transmission or reception with a **ciphering** code generated **based on data** which are transmitted or received previous time.

CONSTITUTION: When data are transmitted from a device A to device B, the **ciphering** code **based on** transmitted **data** is formed by a **ciphering** code generating means 50. Data transmitted from the device A to the device B based on the code are ciphered by a ciphering means 60. A CRC code for data error detection is generally sufficient for the ciphering code, and the ciphering code generation means 50 shared a CRC circuit 50. The CRC code is given to the read counter 3 of transmission RAM 2 and an address where the CRC is set to be an initial value is formed by an address counter. Thus, transmission data are read from an address in the middle of transmission RAM 22, and received data are written from the middle of reception RAM 32.

26/5/13 (Item 13 from file: 347)  
DIALOG(R)File 347:JAPIO  
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04508692 \*\*Image available\*\*  
CIPHER COMMUNICATION METHOD AND CIPHER COMMUNICATION SYSTEM

PUB. NO.: 06-152592 [JP 6152592 A]  
PUBLISHED: May 31, 1994 ( 19940531)  
INVENTOR(s): SUZAKI SEIICHI  
TAKARAGI KAZUO  
FUNAKUBO KENICHI  
NAKAMURA TERUO  
APPLICANT(s): HITACHI LTD [000510] (A Japanese Company or Corporation), JP  
(Japan)  
HITACHI SOFTWARE ENG CO LTD [472485] (A Japanese Company or  
Corporation), JP (Japan)  
APPL. NO.: 04-319457 [JP 92319457]  
FILED: November 04, 1992 (19921104)  
INTL CLASS: [5] H04L-009/06 ; H04L-009/14 ; G09C-001/00  
JAPIO CLASS: 44.3 (COMMUNICATION -- Telegraphy); 44.9 (COMMUNICATION --  
Other)  
JOURNAL: Section: E, Section No. 1599, Vol. 18, No. 467, Pg. 75,  
August 30, 1994 (19940830)

ABSTRACT

PURPOSE: To share a cipher key with plural communication parties in the  
multi- address communication by generating a cipher sentence key by means  
of a master key which is common to the system.

CONSTITUTION: A terminal 100 at the side of transmission ciphers a simple  
sentence 150 by a data key 151. A cipher sentence key 156 is generated  
based on a data key 151, address information 153 specifying a  
receiver, and master key 154 common to the system. A communication sentence  
consisting of the address information 153, cipher sentence key 156, and  
cipher sentence 152 is sent to a communication network 130. A terminal 101  
at the side of reception generates the data key 151 from the address  
information 153 and cipher sentence key 156 included in the received  
communication sentence by means of the master key 154. By means of the  
generated data key 151, the cipher sentence 152 is decoded to generate the  
simple sentence 150. In short, as master key 154 is common to the system,  
the same data key 151 can be used between the transmitter and receiver  
terminals. In addition, the data key 151 is disposable and its safety is  
dependable.

26/5/14 (Item 14 from file: 347)  
DIALOG(R)File 347:JAPIO  
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04324403 \*\*Image available\*\*  
COMMUNICATION SYSTEM FOR CIPHERED CONTROL SIGNAL

PUB. NO.: 05-316103 [JP 5316103 A]  
PUBLISHED: November 26, 1993 ( 19931126)  
INVENTOR(s): NOGUCHI YOSHIRO  
ADACHI KAZUO  
APPLICANT(s): MITSUBISHI ELECTRIC CORP [000601] (A Japanese Company or  
Corporation), JP (Japan)  
APPL. NO.: 04-142078 [JP 92142078]  
FILED: May 08, 1992 (19920508)  
INTL CLASS: [5] H04L-009/06 ; H04L-009/14  
JAPIO CLASS: 44.3 (COMMUNICATION -- Telegraphy)  
JOURNAL: Section: E, Section No. 1517, Vol. 18, No. 124, Pg. 67,  
February 28, 1994 (19940228)

#### ABSTRACT

PURPOSE: To devise the ciphered control signal not easily decoded by revising random number series data used for ciphering the control signal as required.

CONSTITUTION: One random number key generating section is selected from plural random number key generating sections 2c, 2d generating prescribed random number data, and a control signal is ciphered at a control signal ciphering circuit 2f based on random number data generated by the selected random number key generating section. Moreover, random number key identification data representing the random number key generating section used for the ciphering are added to the ciphered control signal. Then the ciphered control signal with the random number key identification data added thereto is sent/received between a master station 2 and a slave station 8 to implement the communication, a control signal decoder 9 extracts the original control signal based on the random number key identification data from the ciphered control signal and decodes it. Thus, the ciphered control signal is not easily decoded.

26/5/16 (Item 16 from file: 347)  
DIALOG(R)File 347:JAPIO  
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04276788 \*\*Image available\*\*  
CIPHERING TRANSMISSION RECEPTION METHOD IN RADIO LINE AND EQUIPMENT USING  
THE METHOD

PUB. NO.: 05-268488 [JP 5268488 A]  
PUBLISHED: October 15, 1993 ( 19931015)  
INVENTOR(s): TSUKUI NAOHIKO  
APPLICANT(s): JAPAN RADIO CO LTD [000433] (A Japanese Company or  
Corporation), JP (Japan)  
APPL. NO.: 04-064890 [JP 9264890]  
FILED: March 23, 1992 (19920323)  
INTL CLASS: [5] H04N-001/44; G06F-015/66; G09C-001/00; H04L-009/34  
JAPIO CLASS: 44.7 (COMMUNICATION -- Facsimile); 44.3 (COMMUNICATION --  
Telegraphy); 44.9 (COMMUNICATION -- Other); 45.4 (INFORMATION  
PROCESSING -- Computer Applications)  
JOURNAL: Section: E, Section No. 1496, Vol. 18, No. 47, Pg. 10,  
January 25, 1994 (19940125)

#### ABSTRACT

PURPOSE: To obtain the ciphering transmission reception method with high  
ciphering performance based on abundant data quantity and the  
equipment using the method in which quick transmission is implemented.

CONSTITUTION: A sender side adds a series and a code generated based on the  
series to a synchronizing phase signal area 201 to block a picture data  
signal area into blocks 202. Moreover, codes are arranged through  
synchronization to obtain a synchronizing signal and a picture data signal  
is sent continuously while starting from an optional position in the unit  
of blocks 202 based on the synchronizing signal. A receiver side receives  
the synchronizing signal and the picture data signal and demodulates them  
and stores demodulation data of the picture data signal. Furthermore, the  
series of the code is detected from the synchronizing signal and the series  
is compared with the stored same series as that of the sender side in the  
unit of prescribed lines to detect a line number of the demodulation data,  
prescribed number of lines are replaced based on the ciphering code and a  
normal picture is obtained from the demodulation data

26/5/19 (Item 19 from file: 347)  
DIALOG(R)File 347:JAPIO  
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03116627 \*\*Image available\*\*  
ENCIPHERING SYSTEM

PUB. NO.: 02-092127 [JP 2092127 A]  
PUBLISHED: March 30, 1990 ( 19900330)  
INVENTOR(s): NAKAMURA KENGO  
APPLICANT(s): NEC CORP [000423] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 63-242596 [JP 88242596]  
FILED: September 29, 1988 (19880929)  
INTL CLASS: [5] H04L-009/06 ; H04L-009/14 ; H04L-009/32  
JAPIO CLASS: 44.3 (COMMUNICATION -- Telegraphy)  
JOURNAL: Section: E, Section No. 943, Vol. 14, No. 288, Pg. 124, June  
21, 1990 (19900621)

#### ABSTRACT

PURPOSE: To prevent the leakage of data by using data before transmission with a first system, using data after decoding with a second system, preparing a new encipherment table with a password generating part having the same algorithm, rewriting the encipherment table of both system and using it as the encipherment table of the next data transmission.

CONSTITUTION: A transmission side system A enciphers the transmission data with an encipherment table 1, forms encipherment data for transmission, transmits them, forms the data to update the encipherment table 1 with a special **algorithm** (computation expression) **based on** the transmission **data** and the data of the encipherment table 1 and thus, the encipherment table is updated. A reception side system B has an encipherment table 2 of the same sequence as that of a transmission side, decodes the received encipherment sentence based on the encipherment number table, forms the new encipherment table by the same algorithm as that of a transmission side based on the decoded data and the encipherment table 2 and updates the encipherment table. Thus, the leakage of the transmission data can be prevented.

NPL  
Bib

Set	Items	Description
S1	15360	CIPHER? OR CYPHER?
S2	2184858	ALGORITHM? ?
S3	7577280	DATA
S4	159898	(BASED() ON OR ACCORDING? OR CONTINGENT? OR EPENDING) (3W) S3
S5	2484	(S1 OR S2) (5N) S4
S6	18	S1 (5N) S4
S7	2	S6 NOT PY>1999
S8	1911	S2 (3N) S4
S9	45447	((BREAK? OR BROKEN) () APART OR SEPARATE? ? OR SEPARATING OR SEPERATION OR PARTITION? OR FRAGMENT? OR SEGMENT? OR DIVIDE? ? OR DIVIDING) (3N) (S1 OR S2)
S10	37	S9 (3N) S4
S11	49	S9 (5N) S4
S12	20	S11 NOT PY>1999
S13	14	RD (unique items)
File	8: Ei Compendex(R) 1970-2005/Dec W2	(c) 2005 Elsevier Eng. Info. Inc.
File	35: Dissertation Abs Online 1861-2005/Nov	(c) 2005 ProQuest Info&Learning
File	65: Inside Conferences 1993-2005/Dec W3	(c) 2005 BLDSC all rts. reserv.
File	2: INSPEC 1898-2005/Dec W2	(c) 2005 Institution of Electrical Engineers
File	94: JICST-EPlus 1985-2005/Oct W3	(c) 2005 Japan Science and Tech Corp(JST)
File	111: TGG Natl. Newspaper Index(SM) 1979-2005/Dec 20	(c) 2005 The Gale Group
File	6: NTIS 1964-2005/Dec W2	(c) 2005 NTIS, Intl Cpyrght All Rights Res
File	144: Pascal 1973-2005/Dec W2	(c) 2005 INIST/CNRS
File	434: SciSearch(R) Cited Ref Sci 1974-1989/Dec	(c) 1998 Inst for Sci Info
File	34: SciSearch(R) Cited Ref Sci 1990-2005/Dec W2	(c) 2005 Inst for Sci Info
File	62: SPIN(R) 1975-2005/Oct W2	(c) 2005 American Institute of Physics
File	99: Wilson Appl. Sci & Tech Abs 1983-2005/Oct	(c) 2005 The HW Wilson Co.
File	95: TEME-Technology & Management 1989-2005/Nov W2	(c) 2005 FIZ TECHNIK
File	56: Computer and Information Systems Abstracts 1966-2005/Dec	(c) 2005 CSA.
File	57: Electronics & Communications Abstracts 1966-2005/Dec	(c) 2005 CSA.

13/5/1 (Item 1 from file: 8)  
DIALOG(R) File 8: Ei Compendex(R)  
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04373554 E.I. No: EIP96013006849

**Title:** Informatique et amelioration des performances dans les entrepots modernes

**Title:** Information technology and improving performances in modern warehouses

Author: Fleury, Gilles

Corporate Source: INFFLUX (Informatique et Flux)

Source: REE, Revue de L'Electricite et de L'Electronique n 6 Dec 1995. p

41-46

Publication Year: 1995

CODEN: REELF3 ISSN: 1265-6534

Language: French

Document Type: JA; (Journal Article) Treatment: A; (Applications); G;

(General Review)

Journal Announcement: 9605W5

Abstract: By examining the management of physical flows within companies software may be created to facilitate warehouse management. More especially, management which takes into account the 'flurry' concept - a set of orders prepared simultaneously - optimizes preparatory circuits and fork-lift movements, and keeps parcels and orders **separate**. A packing **algorithm**, with calculations **based on order data** regarding the number, size and contents of parcels, constitutes another important aspect of the physical flow management system. Installing an optimized logistical system requires a large initial investment, but will bring numerous advantages. (Author abstract)

Descriptors: \*Industrial management; Computer software; Materials handling; Warehouses; Optimization; Packaging; Algorithms; Calculations

Identifiers: Warehouse management; Fork lift movements; Physical flow management system

Classification Codes:

912.2 (Management); 723.1 (Computer Programming); 694.4 (Storage); 921.5 (Optimization Techniques); 694.1 (Packaging)

912 (Industrial Engineering & Management); 723 (Computer Software); 691 (Bulk Materials Handling); 694 (Packaging & Storing); 921 (Applied Mathematics)

91 (ENGINEERING MANAGEMENT); 72 (COMPUTERS & DATA PROCESSING); 69 (MATERIALS HANDLING); 92 (ENGINEERING MATHEMATICS)



13/5/3 (Item 3 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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02777775 E.I. Monthly No: EI8908074155

**Title: Segmentation and object extraction algorithm with linear memory and time constraints.**

Author: Anbalagan, R. S.; Hu, G.; Jain, A. K.

Corporate Source: Innovision Corp, Madison, WI, USA

Conference Title: 9th International Conference on Pattern Recognition

Conference Location: Rome, Italy Conference Date: 19881114

Sponsor: Int Assoc for Pattern Recognition, Paris, Fr

E.I. Conference No.: 12072

Source: Proceedings - International Conference on Pattern Recognition 9th.. Publ by IEEE, New York, NY, USA. Available from IEEE Service Cent (cat n 88CH2614-6), Piscataway, NJ, USA. p 596-600

Publication Year: 1988

CODEN: PICREG ISBN: 0-8186-0878-1

Language: English

Document Type: PA; (Conference Paper) Treatment: X; (Experimental); A; (Applications)

Journal Announcement: 8908

Abstract: An experimental segmentation and object extraction algorithm is described. The system was developed for medical image processing with the primary application being DNA (deoxyribonucleic acid) sequencing. A typical DNA sequencing can involve processing the image of an autodiagram of size 14 multiplied by 17 inches resulting in a 2048 multiplied by 8600 digitized image under the specified spatial resolutions. The digitized image is too big to manage, even using super-minicomputers such as DEC VAX 11/780, and to perform any amount of classical image processing. Therefore, an elegant hardware and software design is necessary to deal with the large image and to complete the image-understanding task in an efficient manner. This work focuses on the image-processing aspects of the system and describes the run-length image representation, a link list data structure, a heuristic connected component analysis algorithm based on the data structure, a primitive object segmentation algorithm, and feature extraction. 8 Refs.

Descriptors: \*IMAGE PROCESSING--\*Medical Applications; PATTERN RECOGNITION; ARTIFICIAL INTELLIGENCE; BIOCHEMISTRY--DNA Sequences; DATA PROCESSING--Data Structures; SYSTEMS SCIENCE AND CYBERNETICS--Heuristic Programming

Identifiers: OBJECT EXTRACTION ALGORITHM; DNA SEQUENCING; KNOWLEDGE BASED IMAGE SEGMENTATION

Classification Codes:

723 (Computer Software); 461 (Biotechnology)

72 (COMPUTERS & DATA PROCESSING); 46 (BIOENGINEERING)

13/5/6 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

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06842355 INSPEC Abstract Number: C9804-6160S-012

**Title: Parallel algorithms for spatial data partition and join processing**

Author(s): Yanchun Zhang; Jitian Xiao; Roberts, A.J.

Author Affiliation: Dept. of Maths & Comput., Univ. of Southern Queensland, Toowoomba, Qld., Australia

Conference Title: 1997 3rd International Conference on Algorithms and Architectures for Parallel Processing. ICA/sup 3/PP 97 (IEEE Cat. No.97TH8324) p.703-16

Editor(s): Goscinski, A.; Hobbs, M.; Zhou, W.

Publisher: World Scientific, Singapore

Publication Date: 1997 Country of Publication: Singapore xiii+765 pp.

ISBN: 0 7803 4229 1 Material Identity Number: XX97-02966

U.S. Copyright Clearance Center Code: 0 7803 4229 1/97/\$10.00

Conference Title: Proceedings of 3rd International Conference on Algorithms and Architectures for Parallel Processing

Conference Sponsor: Deakin Univ; IEEE Victorian Sect

Conference Date: 10-12 Dec. 1997 Conference Location: Melbourne, Vic., Australia

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P); Theoretical (T)

Abstract: The spatial join operations combine two sets of spatial data by their spatial relationships. They are among the most important, yet most time-consuming operations in spatial databases. We consider the problem of binary polygon intersection joins based on the filter-and-refine strategy. Our objective is to minimize the I/O cost and the response time for the refinement step. First, a graph model is proposed to formalize the refinement cost and matrix-based sequential data partition algorithms are introduced. Then a parallel data partitioning algorithm is developed with a detailed complexity analysis. **Based on the data partition results,** a distribution **algorithm** is also proposed for scheduling parallel spatial join processing. (10 Refs)

Subfile: C

Descriptors: computational complexity; database theory; parallel algorithms; query processing; relational algebra; relational databases; scheduling; spatial data structures; visual databases

Identifiers: parallel algorithms; spatial data partition; join processing; spatial join operations; spatial databases; binary polygon intersection joins; filter-and-refine strategy; input output cost; response time; graph model; refinement cost; matrix-based sequential data partition; parallel data partitioning algorithm; complexity analysis; scheduling

Class Codes: C6160S (Spatial and pictorial databases); C6120 (File organisation); C6150N (Distributed systems software); C4250 (Database theory); C6160D (Relational databases)

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13/5/10 (Item 6 from file: 2)  
DIALOG(R)File 2:INSPEC  
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01365838 INSPEC Abstract Number: C72008294

**Title: Algorithm of circuit decomposition when designing digital computers with self-diagnosis**

Author(s): Babushkina, N.A.; Vedeshenkov, V.A.; Vlasenko, N.A.; Volkov, A.F.

Conference Title: Proceedings of the 5th all-union conference on control problems Part III p.97-100

Publisher: Nat. Committee of Automatic Control of the USSR, Moscow, USSR

Publication Date: 1971 Country of Publication: USSR 200 pp.

Conference Sponsor: Nat. Committee of Automatic Control of the USSR

Conference Date: 4-8 Oct. 1971 Conference Location: Moscow, USSR

Language: Russian Document Type: Conference Paper (PA)

Treatment: Theoretical (T)

Abstract: The problem concerns the minimization of control points when dividing a given circuit into **separate** sub-circuits. The **algorithm** is additionally **based** on **data** giving the upper limit of costs for providing the control points and the characteristics of an oriented graph which is equivalent to the considered circuit. (1 Refs)

Subfile: C

Descriptors: computer architecture; graph theory; minimisation

Identifiers: self diagnosis; circuit decomposition; digital computers; minimization; control points; upper limit; costs; oriented graph

Class Codes: C5220 (Computer architecture)

13/5/14 (Item 2 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
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00995733 Genuine Article#: FL808 Number of References: 19

**Title: ALGORITHM TO PREDICT TRIPLE-VESSEL LEFT MAIN CORONARY-ARTERY DISEASE  
IN PATIENTS WITHOUT MYOCARDIAL-INFARCTION - AN INTERNATIONAL CROSS  
VALIDATION**

Author(s): DETRANO R; JANOSI A; STEINBRUNN W; PFISTERER M; SCHMID JJ; MEYER  
MM; GUPPY KH; ABIMANSOUR P

Corporate Source: HARBOR UNIV CALIF LOS ANGELES,CTR MED,ST JOHNS CARDIAC  
RES CTR,1124 W CARSON ST,BLDG A-17/TORRANCE//CA/90502; VET ADM MED  
CTR,DEPT MED,DIV CARDIOL/LONG BEACH//CA/90822

Journal: CIRCULATION, 1991, V83, N5, P89-96

Language: ENGLISH Document Type: ARTICLE

Geographic Location: USA

Subfile: SciSearch; CC LIFE--Current Contents, Life Sciences; CC CLIN--  
Current Contents, Clinical Medicine

Journal Subject Category: CARDIOVASCULAR SYSTEM; HEMATOLOGY

**Abstract:** Logistic regression was applied to the clinical, risk factor, and exercise data of consecutive angiographic referrals without prior myocardial infarction to determine an algorithm predicting the probability of triple-vessel/left main coronary artery disease. These data were obtained from a total of 1,074 such subjects from patient populations at four centers (Cleveland Clinic Foundation, Cleveland, Ohio; Hungarian Institute of Cardiology, Budapest, Hungary; the university hospitals, Zurich and Basel, Switzerland; and the Veterans Administration Medical Center, Long Beach, Calif.) and used to derive four **separate** probability **algorithms**. Each **algorithm** is **based** on patient **data** from study samples at three of the four centers and consists of 272 logistic functions, which are related to linear combinations of 13 variables (age, sex, type of chest pain, systolic blood pressure, resting electrocardiogram, serum cholesterol, fasting blood sugar, achieved exercise work load, achieved heart rate, exercise-induced angina and hypotension, heart rate-adjusted resting ST depression, and exercise ST slope). The four algorithms were cross validated by testing them on the populations not involved in their derivation. The resulting probabilities in the four test groups were then compared with the angiographic findings of triple-vessel/left main coronary artery disease. The discriminatory power of all the algorithms was fair to good (area under receiver operating characteristic curve, 0.68, 0.75, 0.82, 0.85) in the test groups. The algorithm did not significantly underestimate or overestimate disease probability except in one center (Long Beach). The findings suggest that a clinician could expect to avert at least 10 angiograms on patients with less severe disease for every missed case of triple-vessel/left main coronary artery disease by using these probabilities as a basis for the decision to perform angiography.

**Descriptors--Author Keywords:** PROBABILITY ANALYSIS; DISEASE PREDICTION;  
CORONARY ARTERY DISEASE

**Identifiers--KeyWords Plus:** DIAGNOSIS; SURGERY; PROBABILITY; SURVIVAL

**Research Fronts:** 89-0758 001 (MYOCARDIAL REPERFUSION INJURY; INFARCT  
SIZE; CONTRACTILE FUNCTION)

89-1183 001 (QUANTITATIVE CORONARY ANGIOGRAPHY; REGIONAL MYOCARDIAL  
PERFUSION; DISTAL FLOW RESERVE)

89-3469 001 (DIGITAL RADIOGRAPHY; RECEIVER OPERATING CHARACTERISTIC  
ANALYSIS; CONVENTIONAL CHEST IMAGING; DETECTION OF SIMULATED PULMONARY  
NODULES)

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PROUDFIT WL, 1988, V59, P641, BRIT HEART J  
SANTIAGA JT, 1982, V15, P61, J ELECTROCARDIOL  
SWETS JA, 1988, V240, P1285, SCIENCE  
WHITE CW, 1984, V310, P819, NEW ENGL J MED